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5-14-02

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Shigekazu SHUKU et al.

Serial Number: 10/067,918

Group Art Unit: 1772

Filed: February 8, 2002

Examiner: Unknown

For: HEAT-SENSITIVE RECORDING MATERIAL AND PROCESS FOR PRODUCTION
OF THE SAME

INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §1.97(b)

Assistant Commissioner
for Patents
Washington, D.C. 20231

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TC 1/00

May 7, 2002

Sir:

The attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached Form PTO-1449. One copy of each document is attached.

No fee or certification is required in connection with this Information Disclosure Statement, since it is being submitted prior to the last of (1) issuance of a first official action on the merits and (2) expiration of the three month period following filing of the above-captioned application.

Documents FA to FC are not in the English language. However,

U.S. Patent Appln. S.N. 10/067,918
INFORMATION DISCLOSURE STATEMENT

PATENT

a concise statement of relevancy for each document is submitted herewith. The concise explanation of the relevance of the documents required under 37 C.F.R. §1.98 is also believed to be satisfied by submission of English language abstracts thereof.

The Commissioner is authorized to charge our Deposit Account No. 111833 for any fee which is deemed by the Patent and Trademark Office to be required to effect consideration of this statement.

Respectfully submitted,

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Attachments: PTO-1449
3 Documents
Concise statements of relevancy

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- (1) JP 09-24667 discloses a thermal recording medium comprising:
- (a) a thermal coloring layer on at least one side of a substrate,
 - (b) an intermediate layer provided on the thermal coloring layer, if necessary, and
 - (c) a glossy layer formed on the thermal coloring layer or on the intermediate layer, wherein the glossy layer comprises (i) an external coating layer comprising a white pigment, a resin and a lubricant as main components and (ii) an internal coating layer whose resin component is unsaturated organic compound(s) curable with electron beam irradiation,

wherein the external coating layer is obtained by being peeled off from a highly smooth molding surface, and

wherein the external coating layer comprises polyurethane and/or urethane acrylate oligomer and has a breaking elongation of 100 to 1000% at 20°C when dried.

- (2) JP 2000-71617 discloses a thermal recording medium formed by sequentially providing on a substrate:
- (1) a thermal recording layer comprising a leuco dye, a developer and a binder,
 - (2) a first intermediate layer comprising an aqueous resin,
 - (3) a second intermediate layer having been cured by exposing an ionizing-radiation-curable compound with ionizing radiation, and
 - (4) a top layer comprising a pigment and an aqueous resin,

wherein the aqueous resin in the top layer is a resin obtained by seed polymerization of at least (meth)acrylamide as a monomer.

- (3) JP 08-90907 discloses a thermal recording medium comprising:
- (a) a thermal coloring layer on at least one side of a substrate,
 - (b) an intermediate layer provided on the thermal coloring layer, if necessary, and

(c) a glossy layer formed on the thermal coloring layer or on the intermediate layer, the glossy layer comprising (i) an external coating layer comprising a white pigment and an unsaturated organic compound which is curable by electron beam irradiation and (ii) an internal coating layer whose main component is unsaturated organic compound(s) curable with electron beam irradiation,

the external coating layer being obtained by being peeled off from a highly smooth molding surface, and

the external coating layer comprising at least one of alkyl phosphate or a salt thereof wherein the alkyl group has at least 14 carbon atoms as an unreactive lubricant.